

12. *Loc. cit.*, p. 205.
 13. **Newton, Alfred.** Diet. of Birds. Article: Ousel.
 14. **Nichol, M. J.** Three Voyages of a Naturalist. London, 1908, p. 160.
 15. **Selous, Edmund.** Bird Watching. London, 1901, p. 148.
 16. *Loc. cit.*, p. 153.
 17. *Loc. cit.*, p. 152.
 18. *Loc. cit.*, p. 159.
 19. *Loc. cit.*, p. 148.
 20. *Loc. cit.*, pp. 150-151.
 21. *Loc. cit.*, p. 156.
 22. **Selous, Edmund.** The Bird Watcher in the Shetlands. London, 1905, p. 72.
 23. *Loc. cit.*, p. 50.
 24. *Loc. cit.*, p. 168.
 25. **Townsend, C. H.** *Bird Lore*, X, 1908, p. 171.
 26. **Townsend, C. W.** Birds of Essex County. Cambridge, 1905, p. 80.
 27. **Morgan, C. Lloyd.** Habit and Instinct. London, 1896, p. 69.
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A REPRINT OF THE ORNITHOLOGICAL WRITINGS
OF C. S. RAFINESQUE.

PART II.¹

BY CHARLES W. RICHMOND.

RAFINESQUE, with his brother, left Leghorn in March, 1802, and landed in Philadelphia on the 18th of April. He at once began to botanize, collect specimens, and make drawings. He says ('Life of Travel,' p. 17): "My brother had become a sportsman, and procured me many birds. I wanted to undertake the Ornithology of the United States, finding many of them new or unknown, or badly described. I continued also to study the Snakes and Reptiles, communicating some of them to Daudin for his work on Reptiles." So, it appears, Rafinesque narrowly escaped being the Father of American Ornithology. However, this plan, like many others projected by him, fell through, and on his first visit to the

¹ For Part I see *antea*, pp. 37-55.

United States he actually published only one item on the native birds, a note on the food of the Canvasback Duck. He lost no time, however, in describing four species of birds from Java, which he found exhibited in Peale's Museum, in Philadelphia. These descriptions he communicated to Daudin, his first scientific correspondent, who inserted them in the 'Bulletin' of the Société Philomathique de Paris, where they appeared as his earliest published writings.

Bulletin des Sciences, par la Société Philomathique, III, No. 67, 1802. (Vendémiaire, an 11 de la République.¹)

[p. 146.]

Notice sur deux nouvelles espèces des genres picoïdes et turnix de l'île de Java, décrites à Philadelphie, dans le cabinet de M. Peales, par le C. RAFINESQUE.

1°. Le picoïde à dos rouge.

Il est long de six pouces, et diffère essentiellement du picoïde de Sibérie, déjà connu. Le bec est d'un brun clair, avec son extrémité blanchâtre et peu aigüe. Le plumage est presque entièrement noir, varié sur la tête de taches oblongues, sur la gorge et la poitrine de taches plus grandes, plus arrondies et toutes de couleur blanche. Le ventre est varié un peu irrégulièrement de blanc et de noir; une bande blanche s'étend de la base du bec aux épaules où elle s'élargit. Le menton est blanc et sans presque aucune tache. Le dos est jaunâtre à sa moitié supérieure, et rouge à l'inférieure. Les couvertures alaires sont d'un jaune olivâtre; les grandes plumes alaires sont brunes, et les petites, brunes, bordées d'olivâtre. La queue a ses plumes noirâtres, acuminées. Les pieds sont brunâtres, avec deux doigts antérieurs, réunis à leur base, et un doigt derrière.

2°. Un autre oiseau tridactyle, dont M. Peales n'a pas encore pu déterminer le genre: il a quelque analogie par sa forme avec les cailles à trois doigts; mais son bec l'éloigne des Tétrins et des perdrix, et il diffère aussi des pluviers par ses jambes entièrement couvertes de plumes (1).

¹ At this time the society was publishing one number per month. No. 67 was for the period extending from Sept. 22-Oct. 21, 1802.

Il est long de quatre pouces. Son bec est de couleur de corne, comprimé, allongé, avec les deux mandibules convexes, la supérieure ayant son extrémité pointue et dépassant l'inférieure par un petit crochet: les narines sont linéaires et recouvertes par une petite membrane. La tête est brune, pointillée de blanchâtre; le menton et le gosier sont noirâtres; la gorge, la poitrine et les plumes humérales sont fasciées transversalement de blanchâtre et de noirâtre. Le ventre est roussâtre, le haut du dos d'un bai clair, le reste brun fascié transversalement de bai et de noirâtre, ainsi que les couvertures alaires; les plumes alaires sont brunes, bordées de blanchâtre en dehors. La queue est très-courte et brune: les pieds sont cendrés, à trois doigts, tous antérieurs et entièrement séparés, sans membrane.

F. M. D.

(1) Cet oiseau est un turnix, voisin de celui de Madagascar; j'en possède un dessin. (*Note du Redacteur.*)

These birds were not provided with scientific names at the time, but in 1814 (as shown beyond) Rafinesque named them *Picoides (Dinopium) erythronotus* and *Turnix javanica*, respectively. The first description applies to the bird universally known as *Tiga javanensis*, originally described by Ljungh, in 1797, as *Picus javanensis*; the second is *Hemipodius pugnax* of Temminck, 1815. As the generic name *Tiga* Kaup was not proposed until 1836, it follows that *Dinopium* should replace it, while *Turnix pugnax* will become *T. javanica*.

Bulletin des Sciences, par la Société Philomathique. III, No. 68, 1802. (Brumaire, an 11 de la République.¹)

[p. 153.]

Notice sur une hirondelle et un figuier de l'île de Java, décrits à Philadelphie, dans le muséum de M. Peales, par le C. RAFINESQUE.

1^o. L'hirondelle à longues ailes. *Hirundo longipennis*.

Elle est longue de sept pouces et demi; le bec est petit et noir. Le dessus du corps est noirâtre, à reflets bleuâtres; tout le dessous du corps, ainsi que le bas du dos, sont d'un cendré sali. Les ailes

¹ Brumaire, an 11, extended from Oct. 22–Nov. 20, 1802.

sont très-longues, très-aigues et noirâtres, à reflets. On voit une tache remarquable, cendrée ou blanchâtre, salie intérieurement vers le dos. La queue est noire, très-longue, très-fourchue, avec la penne extérieure de chaque côté aussi longue que les ailes.

2°. Le figuier à queue cunéiforme. *Sylvia cuneata*.

Il est long de cinq pouces. Le bec est de couleur de corne, avec la mandibule supérieure anguleuse, et presque entièrement brune. Le dessus du corps est d'un gris olivâtre, avec le gosier blanchâtre, les épaules cendrées, la poitrine et le ventre jaunâtres. Les ailes sont courtes, à pennes brunes bordées de grisâtre; plusieurs plumes sus-alaires sont terminées de blanchâtre; la queue est cunéiforme, brune en dessous, avec l'extrémité inférieure des pennes latérales blanche, d'un brun clair en dessus, avec l'extrémité inférieure de chaque autre penne blanche, et marquée d'une tache arrondie d'un brun foncé.

F. M. D.

Hirundo longipennis is the well known *Macropteryx* (or *Hemiprocné*) *longipennis*; and *Sylvia cuneata* is in all probability the species later described by Horsfield as *Prinia familiaris*.

The Medical Repository (New York). Second Hexade. II, No. 2, 1804.

[p. 208.]

CANVASS-BACK DUCK AND ITS FOOD.

Extract of a letter from Mr. C. S. Rafinesque to Dr. Mitchell, dated Philadelphia, Sept. 7, 1804.

"Having seen in the Medical Repository the mention made of the canvass-back duck and its food (Hex. I. vol. v. p. 342), I have paid particular attention to ascertain what both were; and it is with some degree of pleasure I am able to tell you that I have been successful enough to find their true scientific names. The first is certainly the *anas ferina* of the ornithologists, *le milvûin* of Buffon and the French authors, which is found in Europe, Asia and America. I have seen it myself in Italy and France, where it is reckoned a good game, but not so dainty as it is thought here. I have examined four of them in Philadelphia, which came from the neighbourhood of

Havre de Grace, where they are still plentiful in winter. When there, I was shown the plant or grass they feed upon, and found it to be the *Valisneria Americana*, a new species, somewhat different from the *Valisneria spiralis* of Europe. It covers the bottom of the shallow parts of the Susquehannah, and the head of the bay, from which its leaves nearly reach the surface of the water. The root shoots, in the fall, fleshy and almost esculent buds or protuberances, which stand during the winter, and are the chief food of the *anas ferina* in those parts. Those that escape them send forth next spring new leaves, and sometimes stems also.—The *Valisneria Americana* is called channel-weed in the river Delaware, and canvass-back-duck-food in the Susquehannah.”

In 1810, Rafinesque published his ‘Caratteri,’ a pamphlet of 105 pages, and doubtless one of the commonest of his works. This was apparently issued in blue paper covers (one copy seen by me is in this state), and without the list of writings that occurs on some of his later tracts.

The matter relating to birds is reprinted below.

Caratteri di alcuni nuovi generi e nuove specie di Animali e Piante della Sicilia con varie osservazioni sopra i medesimi. Opuscolo del Sig. C. S. Rafinesque Schmaltz. Palermo. 1810. (Dedication dated “Palermo 1. Aprile 1810.”)

[p. 5.]

CAPITOLO II.—GLI UCCELLI

2. *Sp.* FALCO *Erythruros* — Tutto bigio con il groppone e le coscie rosse ferruginose, rostro giallastro, nero alla punta, piedi e cera arancini.—*Oss.* questo piccolo *Falcone* o più tosto *Smeriglio* é raro, lo ho sentito nominare *Falco Palumbo* da alcuni Cacciatori, egli si ritrova vicino a Palermo e giunge appena alla lunghezza di un piede; è molto grazioso e ben distinto da qualunque altra specie del numeroso genere a cui appartiene.

3. *Sp.* ARDEA *Xanthodactyla* — Tutta bianca,

con un ciuffetto cadente dietro la testa, rostro e piedi neri, diti ed iride gialli, spazio nudo fra il rostro e l'occhio cerulescente.—*Oss.* Questo *Airone* appartiene alla divisione delle *Garzette* ed arriva alla lunghezza di tre piedi, fù ucciso vicino a Licata e ho cognizione che si ritrova pure in Egitto ed in Toscana, dove è di passaggio come in Sicilia.

4. *Sp.* ARDEA *Lucida* — Tutta bianca lucente, con ciuffetto, rostro, e piedi gialli, spazio nudo fra il rostro e l'occhio bigio — *Oss.* Quest'altra *Garzetta*
[p. 6.]

fù ritrovata vicino a Trapani ed è di minor mole della precedente; è pure di passaggio.

5. *Sp.* TRINGA *Picta* — Rostro nero, piedi olivastri, al di sopra fosca macchiata di bianco, al disotto bianca macchiata di fosco al petto e fianchi, penne dell'ale fosche marginate di bianco e fosco — *Oss.* Si chiama dalli Cacciatori *Gadduzzu dipintu*, e non é rara in primavera.

6. *Sp.* EMBERIZA *Atrata* — Rostro, piedi, dorso e fianchi nerastri, fulvastra al disotto, penne della coda nere, l'esteriori marginate di bianco.—*Oss.* Questa sorte di *Ortolano* è raro e di passaggio nella primavera ed età.

7. *Sp.* FRINGILLA *Olivacea* — Tutta olivastra, un poco macchiata di fosco sopra il dorso, e bianchiccia al ventre, rostro e piedi fulvi, penne della coda marginate di fosco.—*Oss.* Ho trovato questo *Pinzone* vicino a Palermo.

8. *Sp.* MOTACILLA *Erythroürus* — Bigia al disopra, faccia, gola, petto, rostro e piedi neri, ventre biancastro, groppone e coda fulva, le sue penne interiore fosche.—*Oss.* Questo Uccellino si chiama in siciliano *Cudirussa* come pure la *M. Phenicurus* che pure vi si ritrova e di cui differisce nel non avere ne la fronte bianca ne il petto fulvo &c. ambidue appartengono al vero genere delle *Motacille* ultimamente riformato col torlierne tutte le *Capinere*, per formarne il Genere *Sylvia*.

9. *Sp. SYLVIA Fulva* — Fulva ferruginosa, biancastra al disotto, groppone giallastro, rostro e piedi bianchicci.— *Oss.* Questa é una della grande specie di *Capinere*, frequenta le montagne e piccoli boschi, e vi é stabile.

10. *Sp. SYLVIA Juncidis* — Penne fosche marginate di fulvastro al disopra, gola, spalle, fianchi e coscie fulvastre, petto e ventre bianchiccio, coda cunciforma sulle penne fosche alla base, nere all'estremità e terminate di fulvo, le due più esteriori lo sono di bianco; uno spazio nudo fra l'occhio e l'orecchie, rostro fosco, piedi bianchicci.— *Oss.* Mo visto questa piccola *Capinera*

[p. 7.]

vicino alla Roccella saltellare sopra i giunchi nei luoghi, umidi; l'avevo pure osservata nelle vicinanze di Livorno, insieme colla seguente.

11. *Sp. SYLVIA Capinera* — Sommità del capo e gote nere, dorso fosco testaceo, al disotto bianco cenerizio, penne della coda nere, l'esteriori marginate e terminate di bianco, rostro fosco, piedi fulvi.— *Oss.* Essa appartiene alla divisione delle *Capinere* col capo colorito al disopra e si distingue della *S. Atricapilla* nell'avere il nero più esteso, nel colore dei piedi, dell'ale &c,

12. *Sp. SYLVIA Xanthogastra* — Bigia olivastro al disopra, gialla al disotto, ale e coda fosche, rostro fosco al di sopra, giallastro al di sotto, piedi pionbini.— *Oss.* Questo piccolo Uccellino è molto grazioso, egli si ritrova nell'autunno insieme colli quattro sequenti, e vengono tutti confusi sotto il nome di *Beccafica* che allora si dà a tutte le *Capinere* che mangiano i fichi.

13. *Sp. SYLVIA Rhodogastra* — Bigia scura al disopra, rosastra al disotto, rostro, ale e coda fosche, le penne esterne della coda terminate di bianco, piedi fulvini.

14. *Sp. SYLVIA Turdella* — Bigia rossiccia scura, biancastra al disotto, rostro e piedi foschi.

15. *Sp. SYLVIA Meleuca* — Capo nerastro al di sopra, dorso fulvo fosco, biancastra al disotto, rostro nerastro, piedi fulvi foschi, penne dell'ale fosche, penne della coda nere e l'esteriori bianche all'estremità.— *Oss.* Essa ha qualche somiglianza colla *S. Capinera* n. 11; ma è più piccola, hà il nero del capo diversamente esteso &c.¹

Précis des découvertes et travaux Somiologiques de M^r. C. S. Rafinesque-Schmaltz, entre 1800 et 1814. (Consists of a letter addressed to "M^r. Ch. H. Persoon M.D." of Paris, and dated June 3, 1814.)

The only ornithological matter in this work appears to be the following, on page 14:

2. *Classe Ornithia — Les Oiseaux.*

8. *Esp. Numenius aterrimus.* Bec, pieds et tout le corps parfaitement noir.— Obs. En Sicile, vulgairement *Addarana*.

9. *Sylvia Azuricollis.* Bec et pieds noirs, dos gris-brun, cou et partie supérieure du poitrail azurés, la partie inférieure rougeâtre, ventre olivâtre.— Obs. En Sicile et en Espagne.

10. *Falco torquatus.* Bec bleu, cere pieds et dos bruns, demi collier roussâtre, blanc en dessous avec des taches brunes sur le ventre, queue rayée de ferrugineux.— Obs. En Sicile, vulgairement *Falchettu*.

The 'Précis,' 'Principes fondamentaux,' and 'Analyse' were originally issued in brown paper covers, on the second and following pages of which is given a list of the author's writings. The first item being of interest to ornithologists is here reproduced:

[p. 2 of cover.]

I. Description de 4 nouvelles espèces d'Oiseaux de l'Ile de Java, observés dans le museum de Mr. Peale à Philadelphie,

¹ I have not attempted the identification of the above species, nor of the three that follow.— C. W. R.

Turnix javanica, *Dinopium* (*Picoides*) *erythronotus*, *Hirundo longipennis* et *Sylvia cuneata*.— Inséré dans le Bulletin des Sciences 1803, num. 67. et 68.¹

Turnix javanica, *Dinopium* (*Picoides*) *erythronotus*, and the generic name *Dinopium* are new here.

Principes Fondamentaux de Somnologie, 1814.

The only items of interest to ornithologists are the substitution of two names, *Anseria* and *Apodium*, for *Anser* and *Apus*, viz.:

[p. 27.]

Obs. Cette règle se lie avec la précédente & elles se supportent réciproquement, les Genres *Talpa* L. & *Catalpa* J. *Bromelia* L. & *Melia* L. *Cancer* L. & *Anser* Brisson, *Sinapis* L. & *Apis* L. en sont des exemples; il faut dans tous les cas semblables conserver le nom antérieur (à moins qu'il ne soit d'ailleurs moins convenable) & modifier les autres; ainsi il faudra adopter *Catalpium* R. *Ananas* T., *Anseria* R. & *Apicula* R. au lieu de *Catalpa*, *Bromelia*, *Anser* & *Apis*.

[p. 28.]

Obs. Ainsi *Mitella* L. *Mitchella* L. & *Michelia* L. peuvent être conservés; mais parmi *Apis* L. *Apus* Cuvier, *Apium* L. & *Apion* Herbst, on ne doit conserver qu'

[p. 29.]

Apium L. les autres doivent être changés en *Apicula* R. *Apodium* R. & *Apionus* R.

Specchio delle Scienze o Giornale Enciclopedico di Sicilia. Tom. II, No. XI, 1 Novembre, 1814.

[p. 132.]

Arrivo delle Lodole vicino Palermo nell'autunno.

Le Lodole (*Alauda vulgaris* L.) sono degli uccelli

¹ These numbers were published in 1802, as noted above.

migratori, i quali vivono e nidificano nell'està sopra il continente europeo, ma lo lasciano nell'autunno, almeno in gran parte, per albergare nell'inverno in Sicilia e nella Barberia. Il loro arrivo principia in Sicilia circa l'equinozio d'autunno, ed il loro passaggio dura quasi un mese: trà tutte le parti della Sicilia non vi è luogo dove giungano in simile abbondanza come nel golfo di Palermo, volano in piccole bande di 20 sino a 50, ma il numero di queste bande è tale che nei giorni di passaggio abbondante, pare che venissero alla fila l'una dell'

[p. 133.]

altra: l'ora del passaggio dura tutto il giorno, ma il tempo più abbondante è dopo il mezzodì, particolarmente quando soffia un moderato vento di tramontana, grecale o maestrale, con un altro vento giungono in piccolissimo numero, e non ne arriva quasi mai con un vento impetuoso o collo scirocco e libeccio. Volano a fiore d'acqua e con volo lento ma uguale, e non s'innalzano nell'aria che quando giungono sopra la riva. Io hò calcolato che nelle giornate di gran passaggio ne devono giungere quasi un milione, cosicchè si può supporre ragionevolmente che in tutta la stagione arrivano in Sicilia nel solo golfo di Palermo (spazio al più di 20 miglia) più di dieci milioni di Lodole.

Questo passaggio somministra ai palermitani una piacevole ed abbondante caccia; un numero sorprendente di cacciatori di spargono sopra tutto il litorale, o vanno in barche ad incontrarle nel mare; vi sono in certe giornate quasi cento barche nel golfo e più di tre cento cacciatori sulle rive, i quali fanuo quasi un fuoco continuo di modo che le vicinanze di Palermo presentano l'aspetto ed il rumore di una battaglia o vivo attacco di fucilate: alcuni trà questi cacciatori giungono ad ammazzare un centinaio di Lodole in poche ore. Il nome che essi hanno in Sicilia a questi uccelli è quello di *Lonora*. Non pare che il rumore delle fucilate le spaventi a gran distanza, giacchè continuano a venire dove vi è il più vivo fuoco; ma da vicino fà deviare le bande del

loro corso o le fà spartire, fuggendo di quà e di là ed anche ritornando nel mare, ma per rintracciare un punto del lido meno pericoloso. Essendo stanche del loro viaggio cadono facilmente, anche se sono debolmente colpite o ferite, e rimangono a galla sopra l'acqua dove si colgono agevolmente.

Quelle che scappano a questo macello, si spartono e vanno ad albergare nelle pianure e pascoli, dove altri cacciatori vengono a perseguitarle; ma nondimeno vi sono più difficili a rintracciare e colpire, cosicchè molte scappano a tutti i loro nemici, e nella primavera la maggior parte lascia la Sicilia per ritornare nell'Italia e nel

[p. 134.]

continente: la loro partenza è però più segreta del loro arrivo, i loro persecutori non hanno quindi scampo di disturbarla.

American Monthly Magazine and Critical Review. IV, No. I, Nov., 1818.

In an article entitled "Museum of Natural History," Rafinesque gives an account of various new genera and species of animals, plants, etc., among which appears the following:

[p. 41.]

I. N. G. *Rimamphus*. (A bird. Natural family of *Leptoramphous*.) Bill subulate, mandibles convex, leaving an opening between them, the lower one straight, the upper one longer, curved, and not notched, nostrils naked. *Rimamphus citrinus*. (Citron Open-bill.) General colour of a citron yellow, back rather oliveaceous, five brown and raised feathers on the bend of the wings, quills tipped with brown, bill and feet flesh-coloured. A beautiful little bird, about 5 inches long, the tail, which is truncate, is one inch and an half, the wings are short. It is a native of the south, and was shot near the falls of Ohio, in Indiana, in the month of July. Very scarce. It lives on insects, and darts on them from the trees. It does not sing.

In the next number of this magazine (IV, No. 2, Dec., 1818), there is a continuation of the "Museum of Natural History," with the following paragraph on birds:

[p. 106.]

2. BIRDS. Among them three new genera, *Rimamphus*, *Ramphosteon*, and *Symphemia*, and at least 38 new species have been ascertained. These belong to the following genera: — *Philomela*, 8 species; *Cuculus*, 1; *Troglodytes*, 1; *Sylvia*, 2; *Muscicapa* 2; *Perdix*, 1; *Rallus*, 1; *Talco*, 7; *Mergus*, 3; *Anas*, 5; *Phalaropus*, 1; *Tringa*, 2; *Charadrius*, 2; *Podiceps*, 1; *Himantopus* 1, &c.

Journal de Physique, LXXXVIII, Juin, 1819.

PRODROME

De 70 nouveaux Genres d'Animaux découverts dans l'intérieur des États-Unis d'Amérique, durant l'année 1818;

— Par C. S. RAFINESQUE.

[p. 418.]

II^e CLASSE. OISEAUX.

3. RIMAMPHUS. Bec subulé entr'ouvert, mandibules rondes, la supérieure très-courbée, vibrissées; narines nues, etc. Fa mille des Leptoramphes ou Fauve tes. 1 espèce du Kentucky. *R. citrinus*. Jaune citron, dos olivâtre, bec et pieds incarnats, ailes courtes, 5 plumes brunes, relevées au fouet de l'aile; insectivore; il ne chante pas et s'élance des arbres sur sa proie.

4. HELMITHEROS. Différent du genre *Sylvia* par bec un peu courbe, mandibule supérieure arrondie non échancrée. Le type de ce genre est la Fauvette vermivore, ou Wormeater Warbler de Wilson, que je nomme *H. migratorius*.

5. SYMPHEMIA. Différent du genre *Tringa* par bec cylindrique, doigts semi-palmés. Type *T. semi-palmata* que je nomme *S. atlantica*. Il y en a une autre espèce en Kentucky qui peut se nommer *S. melanura*.

Annals of Nature or Annual Synopsis of New Genera and species of Animals, Plants, &c. discovered in North America. First Annual Number, for 1820. (Introduction dated March 1, 1820.)

[p. 4.]

II CLASS. ORNITHIA.—THE BIRDS.

13. *Milvus leucomelas*. White, unspotted, top of the head and part of the back, wings, tail and bill black, feet yellow.— It is found in west Kentucky and Illinois, it feeds on fishes, and is therefore called Fishing Hawk; size small, tail quite forked.

14. *Ardea phaioma*. Entirely of a deep brown, neck ferruginous behind, white before, bill black, feet yellow.— It lives in Missouri, Illinois and west Kentucky; it is of a small size, total length about eighteen inches; it belongs to the tribe of Bitterns.

15. *Charadrius viridis*. Entirely of a light green, unspotted, wings and tail tinged with brown, bill and feet black.— It has been seen by Mr. Audubon in Missouri, near St. Genevieve; it is a solitary and very wild bird, size of the common Plover. Is it a *Fulica*?

16. *Hirundo phenicephala*. Head scarlet, back grey, belly white, bill and feet black.— A fine and rare swallow, seen only once by Mr. Audubon, near Hendersonville in Kentucky; it must have been a wanderer, and is probably a native of Louisiana or Mexico.

The descriptions of Nos. 15 and 16 are thought to be those of imaginary birds, furnished by Audubon, who imposed on Rafinesque in several other instances. Audubon's opinion of Rafinesque is duly recorded in one of the sketches in his 'Ornithological Biography' (I, 1832, pp. 455-460).

Annales Générales des Sciences Physiques (Bruxelles), VII, "1820" (1821),

Sur quelques Animaux hybrides. Par M. C. S. Rafinesque. Pp. 85-88.

The only reference to birds in this article is the following:

[p. 88.]

L'oie du Canada ou oie à cravatte (*Anser canadensis*) a été complètement apprivoisée dans les Etats-Unis, où elle existe en parfaite domesticité. Elle s'est unie presque aussitôt avec l'oie domestique, et a produit des individus féconds, lesquels ont produit de nouveaux métis féconds, par le croisement des races; ils participent plus ou moins de la nature des espèces dont ils proviennent, à mesure qu'ils s'éloignent des types originels. Cependant l'oie à cravatte a été regardée comme une espèce distincte par tous les naturalistes, et même par Buffon, quoiqu'il fût si porté à restreindre le nombre des espèces par esprit de système.

La même union féconde a lieu entre le canard domestique et le canard musqué, quoique ce dernier diffère si essentiellement du premier, qu'il devrait peut-être former un genre, ou sous-genre à part, à cause surtout de sa tête caronculée. Ils diffèrent entr'eux certainement autant ou plus que les aras ne diffèrent des perroquets dont ils ont été séparés.

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p. 63.]

10. ORNITHOLOGY.—Description of a new Eagle from South America, *Aquila dicronyx* or Macarran Eagle. By C. S. R.

Mr. Macarran of Philadelphia has had for 5 years in his small menagerie and botanic garden, a beautiful eagle, kept alive in a cage in the open air during the coldest winters, being a native of the cold climate of Antarctic America. He was found by the mate of a vessel near Buenos Ayres, while yet young, feeding on a dead horse, and taken alive without much difficulty. He has grown and improved in colors since bought by Mr. Macarran. Although fierce and wanting to fly against the boys when they annoy him, he is very tame and grateful towards his keeper: he knows him as well as friendly visitors, and greets them by peculiar postures, looks or cries. He has several kinds of cries rather harsh, to express joy or anger. He feeds on every kind of flesh, offals or even fish and dead animals. He will kill rats and eat them. He is a beautiful noble bird, when he expands the wings they fill his large cage. His gait is clumsy and he oftener jumps than walks.

I have called him *Aquila dicronyx* from the singularity of claws of two

colors.

Aq. dicronyx. spec. ch. Bill horny, feet yellow, claws black, but the middle claw horny or whitish; plumage blackish, head greyish, tail whitish, end of it rusty.

Description.—Total length 3 feet, wings expanded, 9 feet; bill large strong 4 inches long, shaped as in the eagles, of a horny or whitish-yellowish color; cere and lore brownish; eyes black and bright, iris yellow; head greyish above and across the eyes, nearly white beneath and above the eyes; feathers nearly black with a lead colored cast, white at their base; wings slate colored beneath; Uropygial feathers mixt of black and grey. Tail with a rusty band at the end. Feet yellow very strong, feathers not quite to the toes. Claws strong and black, that of the middle toe same color as the bill.

When younger this bird was entirely of a bluish black, or dark lead color, the head and tail have since changed, but the rusty band of the tail and claws were permanent and are prominent distinctions between this eagle and the whitehead eagle.

Mr. Audubon admired this eagle and wanted to purchase him; but Mr. Macarran would not take less than \$100 for him.

This appears to complete the list of Rafinesque's ornithological writings. I have not, however, consulted his "Enumeration and Account of some remarkable Natural Objects in the Cabinet of Professor Rafinesque,"¹ published in Philadelphia, in 1831. This work, we learn from an advertisement on the back cover of his 'Life of Travel,' was "sold to Zoologists and Oryctologists, for 25 cts."

¹ Dr. Allen has recently written me that there is no ornithological matter in this work.